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ABSTRACT

Job displacement represents a serious labor market problem affecting a broad spectrum of the labor force. A study used data from the January 1984 Displaced Worker Survey, a supplement to the Current Population Survey, which analyzed patterns of job displacement, the post-displacement reemployment, and earnings experience of displaced workers. The study sample was limited to 9.5 million workers 21 to 60 years of age, formally employed in full-time jobs. Using econometric models of reemployment and post-displacement earnings, the study found the following: (1) displacement is widespread; (2) displacement rates are lowest in the Northeast and highest in the Midwest; (3) Black and Hispanic workers are overrepresented among displaced workers, whereas women are underrepresented; (4) displaced workers tend to be younger and have less formal education; (5) two-thirds of workers displaced in 1979 were reemployed by 1984; (6) displaced workers with more formal education are more likely to return to full-time employment; (7) reemployment earnings nearly match those on the old job; (8) a minority of displaced workers experience a large reduction in earnings capacity; (9) more educated workers have smaller earnings losses; (10) displacement results in loss of group health insurance coverage; and (11) most displaced workers are young but 15.9 percent are 50 years or older. There is a need for labor market assistance programs, targeted on the minority of displaced workers likely to face reemployment difficulty and reduced earnings potential unless assisted. (Notes, 26 bibliography entries, 12 tables, and 5 additional tables are included in this report.) (NLA)

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Job Displacement, Reemployment, and Earnings Loss: Evidence from the January 1984 Displaced Worker Survey

by

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PREFACE

There has been a resurgence of concern in recent years about workers displaced by structural changes in the economy. One dimension of this concern has to do with estimating the number of displaced workers and the magnitude of their economic losses. Estimation has been hampered by the lack of information on individuals throughout the nation. The Bureau of Labor Statistics (BLS) first collected data on worker displacement in a January 1984 supplement to the monthly Current Population Survey. The present study, by Professors Michael Podgursky and Paul Swaim, uses these data to analyze the extent of displacement and the subsequent labor market status of those displaced.

Estimates by BLS analysts using data from the January 1984 survey have been widely quoted. Perhaps the most quoted number has been the estimate of 5.1 million workers displaced between January 1979 and January 1984. This estimate refers to workers who had been working with the same employer for at least three years prior to displacement. Many analysts believe that some such experience restriction is useful to screen out workers with a lesser attachment to the work force. Podgursky and Swaim chose not to use a tenure restriction. Their estimate of the number of nonagricultural wage and salary workers age 20 and above who experienced displacement is 10.9 million, while most of the analysis is focused on sample members displaced from full time jobs, estimated to account for 9.5 million of the total displaced between 1979 and 1984.

While the incidence of displacement is different for different groups in the labor force, such as male blue collar workers with less than high school vs. female white collar workers with college degrees, the authors find that no group is immune. Futhermore, they conclude, there is great diversity in the extent of earnings change for those who are reemployed. The study also provides some rare empirical evidence on the loss of health insurance coverage by displaced workers, a problem experienced by a substantial minority of them.

The Commission's studies of displaced workers have been coordinated by Stephen E. Baldwin, staff economist, under the general supervision of a Commission work group chaired by Commissioner D. Quinn Mills. The Commission expresses its appreciation to Professors Podgursky and Swaim for their thoughtful work. The findings and conclusions of this study are those of the researchers, and should not be construed as representing the views of either the Commission or its staff.

Executive Summary

Job Displacement, Reemployment, and Earnings Loss: Evidence from the January, 1984 Displaced Worker Survey

Michael Podgursky and Paul Swaim*

While there is considerable interest in the extent of job displacement and the labor market experience of displaced workers, research on these problems has been hampered by a lack of survey data which directly identify displaced workers. This paper uses data from the January 1984 Displaced Worker Survey -- a special supplement to the Current Population Survey designed to identify such workers -- to analyze patterns of job displacement and the post-displacement reemployment and earnings experience of workers whose jobs are eliminated.

The authors conclude that job displacement represents a serious labor market problem affecting a broad spectrum of the labor force. While many displaced workers find jobs with comparable earnings relatively quickly, a sizeable fraction are slow to return to full-time work and suffer large earnings losses upon reemployment.

Some specific findings are:

--Displacement is widespread. 10.9 million non-agricultural workers were displaced between January 1979 and January 1984.

--Displacement rates are lowest in the Northeast and highest in the Midwest. Workers in manufacturing industries and blue-collar occupations are substantially more likely to be displaced than other workers.

--Black and Hispanic workers are overrepresented among displaced workers, while women are underrepresented. The relative concentration of Blacks and Hispanics in displacement-prone blue-collar jobs, and of women in relatively stable white-collar and service jobs provides a partial explanation for these patterns.

--Displaced workers tend to be younger and to have less formal education than nondisplaced workers.

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--Approximately two-thirds of the workers displaced from full-time jobs between January 1979 and January 1984 were reemployed at the time of the survey (January 1984). Women were less likely to be reemployed and more likely to drop out of the labor force than were men.

--Displaced workers who have above-average levels of formal education, household heads, or workers who received relatively high earnings on their former job are more likely to return to full-time employment. Blacks and workers residing in areas with high unemployment rates are less likely to be reemployed.

--For the median worker, reemployment earnings nearly match those on the old job. The ratio of current to (inflation-adjusted) former earnings is .90 and .94 for blue-collar and white-collar and service workers, respectively. These median earnings ratios, however, mask a large dispersion of outcomes.

--Nearly 29 percent of full-time reemployed blue-collar and 25 percent of full-time reemployed white-collar and service workers reported earnings losses in excess of 25 percent. Thus, a sizeable minority of displaced workers experience a large reduction in earnings capacity.

--For workers who return to full-time work, earnings losses tend to be greater for those previously earning above-average pay, workers who change industry or occupation, or reside in areas with above-average unemployment rates. More educated workers have smaller earnings losses.

--Displacement frequently results in a loss of group health insurance coverage. Blue-collar workers, blacks, and workers with low education levels are at the greatest risk.

--Most displaced workers are relatively young, but 15.9 percent are fifty years or older. Protracted unemployment is common for workers displaced in their fifties, while workers sixty and over tend to drop out of the labor force following displacement.

A major policy implication of this research is the continuing need for labor market assistance programs, even in periods of economic recovery. Such programs should be targeted on the substantial minority of displaced workers likely to face reemployment difficulty and reduced earnings potential unless assisted.

I. Introduction

Increased import penetration, new automation technologies, and structural changes in industry have raised concern about the problem of displaced workers in the United States. Unfortunately, the existing literature reflects widely differing assessments of the incidence of displacement and the extent of labor market difficulties faced by workers following displacement. On the one hand, case studies of plant closings show that some displaced workers experience protracted unemployment and substantial loss in long-run earnings, even when new employment is found ([4], [10]). Bluestone and Harrison [2] have assembled national data on the gross annual rate of job "deaths" in the 1970's and conclude that upwards of three million workers may experience job dislocation each year. On the other hand, authors of several recent studies question the extent and severity of dislocation, and hence a more activist policy stance regarding plant shutdowns and job dislocation ([1], [13]).

Research on these and related questions, however, has been hampered by the absence of survey instruments specifically designed to identify displaced workers. In their absence, previous studies have frequently utilized labor force surveys or administrative data files in which displaced or dislocated workers are not explicitly identified, or in which other basic information is lacking.1/ In response to growing public concern with the problem of plant shutdowns and displacements, the Bureau of Labor Statistics developed a special Displaced Workers Survey to supplement the usual labor force data collected in the January 1984 Current Population Survey (CPS).

In the Section II, we describe this new survey and examine patterns of job displacement by region, industry, and occupation. We also compare demographic characteristics of displaced and nondisplaced workers. In Section III we examine patterns of earnings and benefit loss when workers secure new jobs. We then identify variables which influence reemployment and earnings loss. We also examine the loss of an important fringe benefit, group health insurance. Finally, we present statistics on the labor market problems of older workers. A concluding Section IV summarizes our basic findings and discusses implications for public policy.

II. Patterns of Job Displacement

The Displaced Worker Survey

A special supplement to the January 1984 Current Population Survey (CPS) makes it possible to examine the labor force experience of a large nationally representative sample of displaced workers. All respondents from the roughly 60,000 CPS households in that month were asked whether they or any adult member of their household (age 20 or older) had "lost or left a job since 1979 because of a plant closing, an employer going out of business, a layoff from which . . . was not recalled or other similar reasons." An affirmative response triggered a series of 18 supplemental questions concerning the job loss and subsequent labor market experience. These special supplemental questions, of course, augment the extensive labor force data provided on the basic monthly CPS survey.

Who Gets Displaced?

Between 1979-1983, nearly 11 million nonagricultural workers experienced displacement, including 4.9 million manufacturing workers. A displaced worker is here defined as one who lost a job due to a plant shutdown or relocation, or a worker whose employer remained in operation but who was permanently laid off due to slack work or whose job was otherwise eliminated. 2/

Table 1 presents summary statistics on employment and displacement by region. All of the four Census regions make large contributions to the national total. There is, however, variation across regions in their relative contribution. This is seen by comparing the percentage figures in parentheses in the employment and displacements columns. The Northeast bears the lightest relative burden: the region accounts for 22.6 percent of payroll employment, but just 18.0 percent of displacements. The Midwest, by contrast, accounts for a disproportionately large share of displacements. Finally, the "sunbelt states" in the West and South have displacements which match or exceed their shares of employment. Similar patterns prevail if we focus only on displacements due to plant shutdowns or on displacements in manufacturing.

While displacement rates across regions vary somewhat, a much greater imbalance prevails when we examine patterns across industries and occupations. Table 2 reports displacements by industry. Not surprisingly, Goods-Producing industries make disproportionately large conributions to total displacements, while Service-Producing industries make relatively small contributions. The largest share of displaced workers lost jobs in Durable Manufacturing industries (28.4 percent) followed by Nondurable

Table 1

Regional Shares of Employment and Displaced Workers, 1979-1983 (a)

	All Nonagricultural Industries			Manufacturing		
	(1)	(2)	(3)	(4)	(5)	(6)
		1979-1983 Displacements			1979-1983 Displacements	
	Average Annual Emplmt (000)	Total (000)	Plant Shutdown (000)	Average Annual Emplmt (000)	Total (000)	Plant Shutdowns (000)
Total U.S.	90 652 (100.0)	10 999 (100.0)	4 737 (100.0)	19 770 (100.0)	4 909 (100.0)	2 070 (100.0)
Northeast	20 492 (22.6)	1 969 (18.0)	854 (18.1)	4 905 (24.8)	990 (20.2)	427 (20.6)
Midwest	23 229 (25.6)	3 145 (28.6)	1 254 (26.6)	5 820 (29.4)	1 541 (31.4)	573 (27.7)
West	17 581 (19.4)	2 305 (20.9)	1 042 (21.9)	3 082 (15.6)	851 (17.3)	394 (19.0)
South	29 350 (32.4)	3 580 (32.5)	1 587 (33.4)	5 963 (30.2)	1 526 (31.1)	677 (32.7)

(a)Average annual payroll employment in columns (1) and (5) is computed from annual employment by state for the years 1979-1983 as reported in Employment and Earnings (May, 1982, pp. 106-117; May, 1985, pp. 118-135). Total displacements in columns (2) and (5) refer to workers displaced due to plant shutdowns or business relocations, or workers whose employer remained in operation but whose job was eliminated. Totals in columns (3) and (6) refer to workers displaced due to plant shutdowns and business relocations only. Workers formerly self-employed or employed in agricultural industries, or employed as private household workers are excluded from the displacement totals. Note that payroll employment statistics include teenage workers while displacements only include adult workers aged 20 and older.

Table 2

Displacement By Industry, 1979-1983

Industry	(1) Avg. Annual Employmt 1979-83	(2) Total Displacements 1979-83
Total	97 252	10 947
(% of Total)	(100.0)	(100.0)
Goods-Producing Total	31 994	6 150
	(32.9)	(56.2)
Mining	1 042	302
	(1.1)	(2.8)
Construction	11 198	1 017
	(11.5)	(9.2)
Durable Manufacturing	11 774	3 114
	(12.1)	(28.4)
Nondurable Manufacturing	7 980	1 717
	(8.2)	(15.7)
Service-Producing Total	62 258	4 797
	(67.1)	(43.8)
Transportation, Commun., & Public Utilities	5 097	706
	(5.2)	(6.4)
Wholesale Trade	5 275	564
	(5.4)	(5.2)
Retail Trade	15 187	1 229
	(15.6)	(11.2)
Finance, Insurance, & Real Estate	5 248	252
	(5.4)	(2.3)
Services	18 464	1 470
	(19.0)	(13.4)
Public Admin.	15 987	576
	(16.4)	(5.3)

Table 2 (Cont.)

Col. (1) - Average employees on nonagricultural payrolls calculated from Handbook of Labor Statistics, 1985, Table 63. This total differs from the total in the first column of Table 1 due different estimation procedures employed by State Employment Security Agencies and the Bureau of Labor Statistics.

Col. (2) - Workers displaced due to plant shutdowns or business relocations or whose job was otherwise eliminated. It excludes a small number of workers whose former industry could not be identified.

Manufacturing (15.7 percent). Given their large employment base, however, Retail Trade and Services together account for 24.6 percent of displacements. The large share of manufacturing employment in total Midwestern employment contributes to this region's high overall displacement rate.

Similarly, because of their industrial concentration, blue-collar occupations account for a large and very disproportionate share of displacements. Table 3 presents data on occupational patterns of job displacement. The first column presents the distribution of adult employment in January 1984 and the second shows the pattern of displacements over the previous five years. While blue-collar occupations accounted for only 29.8 percent of employment in January 1984, they produced 57.3 percent of displacements. Within the blue-collar group the largest share of displacements are among Operators, Fabricators, and Laborers, which accounts for over a third of total displacements.

Who are these displaced workers and how do they compare to workers who remain on the job? The demographic statistics on displaced and nondisplaced workers in Table 4 provide some answers to this question. The percent of displaced workers who are women is considerably less than women's share of full-time adult employment (33.7 versus 41.4 percent). The occupational breakdown in subsequent columns, however, show that their disproportionately low share of displacements derives in part from their concentration in less displacement-prone white-collar occupations. Within blue-collar occupations, women make up a larger share of displaced than of nondisplaced workers (23.5 versus 18.3 percent). This is likely due to such factors as lower average seniority in firms, making women more susceptible to layoffs.

Black and hispanic workers, on the other hand, tend to be more concentrated in blue-collar occupations, hence more susceptible to displacement than other workers. Both groups make up a larger share of displacements than of employed nondisplaced workers. Like women, blacks tend to be over-represented in blue-collar displacements, although this does not hold for hispanics.

Displaced workers are on average several years younger than nondisplaced workers. Displaced workers also tend to have fewer years of education than nondisplaced workers (12.2 versus 13.1), but the difference within occupational groups is much smaller. It is important to note in this regard that the below-average formal education of blue-collar workers may hinder their mobility to white-collar and service occupations where average educational attainment is greater.

Table 3

Employment and Displacements By Occupation, 1979-1983

Occupation	(1) Total Employment January 1984	(2) Displacements January 1979 - January 1984
Total	83 301	10 909
(% of Total)	(100.0)	(100.0)
White-Collar & Service	58 518 (70.2)	4 662 (42.7)
Executive, Admin., & Managers	9 853 (11.8)	839 (7.7)
Professional Specialty	11 737 (14.1)	568 (5.2)
Technicians	2 970 (3.6)	285 (2.6)
Sales	8 846 (10.6)	1050 (9.6)
Administrative Support, incl. Clerical	14 510 (17.4)	1 202 (11.0)
Service (excl. private HH)	10 602 (12.7)	718 (6.6)
Blue-Collar	24 781 (29.8)	6 248 (57.3)
Precision Product., Craft, & Repair	10 395 (12.5)	2 161 (19.8)
Operatives, Fabric., & Laborers	13 980 (16.8)	3 950 (36.2)
Farmers, Forestry, Fishing	406 (.5)	137 (1.3)

Col. (1) - Wage and salary workers aged 20 and older employed in nonagricultural jobs, January 1984.

Col. (2) - Workers aged 20 and older displaced from nonagricultural jobs, January 1979 - January 1984.

Table 4

Demographic Characteristics of Displaced and Nondisplaced Workers

	Nondisplaced			Displaced		
	(1) Total	(2) BC	(3) WC & S	(4) Total	(5) BC	(6) WC & S
Female (%)	41.4	18.3	51.3	33.7	23.5	49.2
Black (%)	10.2	11.6	9.6	12.1	14.0	9.3
Hispanic (%)	5.6	8.5	4.4	6.0	7.5	3.6
Age (yrs.)	38.4	38.1	38.5	35.9	36.7	35.3
Education (yrs.)	13.1	11.4	13.8	12.2	11.5	13.2

Cols (1) - (3) Wage and salary workers in full-time nonagricultural jobs aged 20 and older who were not displaced from one or more jobs between January 1979 and January 1984.

Cols (4) - (6) Wage and salary workers aged 20 and older who were displaced from full-time nonagricultural jobs between January 1979 and January 1984.

III. Post-Displacement Earnings

Summary Statistics on Earnings Loss

In this section we will focus on the experience of a somewhat smaller and more homogeneous group of displaced wage and salary workers. In particular, we now limit our sample to workers 20-61 years of age (the experience of older workers will be examined in a separate subsection below). Since the survey provides data only on weekly earnings, we also limit our sample to workers formerly employed in full-time jobs. This limitation is to avoid potential error due to lack of data on hours worked on part-time jobs.

Before investigating earnings losses for reemployed workers, we first examine the extent of reemployment. Table 5 presents national estimates based on this sample of displaced workers broken down by labor force status, occupational group and sex. Between 1979 and January 1984, we estimate that nearly 5.8 million (i.e., 5,777 thousand) blue-collar workers were displaced from full-time jobs. At the time of the survey (1/84) 60.7% were reemployed, 29.2% were unemployed, and 10.2% had dropped out of the labor force. A noticably higher, 68.5% of the 3.8 million displaced, white-collar and service workers were reemployed at the time of the survey. A comparison of male and female labor force breakdowns shows a higher reemployment rate for males, and a higher labor force dropout rate for females.

How do earnings on their new jobs compare with those on their former job? Table 6 reports the ratio of current to former weekly earnings broken down by sex and broad occupational group. Since up to five years may have elapsed between the time of displacement and the January 1984 survey, we have adjusted reported earnings on the former job by an index of money wage growth by sex and occupation computed from published data on full-time weekly earnings. 3/ This approximates what a worker would have been earning in January 1984 if he or she had not been displaced. The top panel of the table reports statistics for all reemployed workers, and the bottom panel presents statistics for workers reemployed full time.

For the median worker, reemployment earnings nearly match those on the former job. The ratio of current to adjusted earnings on the former job is .90 and .94 for blue-collar and white-collar and service workers, respectively. This ratio is even higher for workers returning to full-time jobs.

The median earnings ratio, however, masks a very wide dispersion of post-displacement experience. Many of the full-time reemployed receive weekly earnings that equal or exceed their adjusted former earnings (row "1.00+"). At the

Table 5

Nonagricultural Wage and Salary Workers Displaced from Full-Time Jobs: January, 1979-January, 1984[a]

Labor Force Status (1/84)	Blue-Collar (000)			White-Collar and Service (000)		
	Total	Male	Female	Total	Male	Female
Total	5 777	4 438	1 339	3 769	1 909	1 860
(% of total)	(100)	(100)	(100)	(100)	(100)	(100)
Employed	3 505	2 835	670	2 582	1 433	1 149
	(60.7)	(64.3)	(50.0)	(68.5)	(75.0)	(61.8)
Unemployed	1 685	1 319	366	735	386	349
	(29.2)	(29.7)	(27.4)	(19.5)	(20.2)	(18.8)
Not in L.F.	587	284	303	453	91	362
	(10.2)	(6.4)	(22.6)	(12.0)	(4.8)	(19.5)

[a] Less than 62 years of age in January, 1984. Components may not sum to total due to rounding error.

Table 6

Ratio of Current to Trend-Adjusted Former Earnings:
Displaced Workers Reemployed January, 1984

Ratio of Current to Former Earnings	Blue-Collar			White-Collar & Service		
	Total (%)	Male (%)	Female (%)	Total (%)	Male (%)	Female (%)
All Reemployed	100.0	100.0	100.0	100.0	100.0	100.0
1.00 + (No Loss)	37.6	38.1	35.7	40.7	45.6	35.3
.75 - .999	27.7	27.1	30.2	27.5	25.6	29.6
.50 - .749	19.2	19.4	18.4	17.6	17.8	17.5
less than .5	15.5	15.4	15.7	14.2	11.1	17.5
Median	.90	.91	.87	.94	.99	.90
Reemployed Full-Time	100.0	100.0	100.0	100.0	100.0	100.0
1.00 + (No Loss)	41.1	40.8	42.2	45.7	48.4	42.2
.75 - .999	30.2	29.4	33.6	29.9	26.7	34.0
.50 - .749	18.6	19.3	15.6	17.0	17.3	16.7
less than .5	10.1	10.5	8.6	7.4	7.6	7.1
Median	.94	.94	.91	.98	.99	.96
Full-Time Reemployed as % of All Reemployed	84.4	86.0	78.9	84.0	91.5	75.9

same time, however, nearly 29 percent of blue-collar and 25 percent of white-collar and service workers have full-time weekly earnings less than 75 percent of their estimated rate on the former job, and 10.1 and 7.4 percent of the same groups have full-time earnings less than one-half their old job's rate of pay.

While the share of workers experiencing very large reductions in earnings is small, it is important to keep in mind that it aplies to a large base (5.1 million full-time reemployed workers). Thus, for example, we estimate approximately 300 thousand blue-collar workers and 160 thousand white-collar and service workers experienced a reduction in full-time weekly pay in excess of 50 percent. This is in addition to the 2.8 million blue-collar workers and 1.6 million white collar and service workers who were either not reemployed or reemployed part-time.

Factors Influencing Reemployment and Earnings Loss

Some displaced workers return to full-time work and suffer no detectable long-term earnings loss while others remain subemployed or return to full time jobs paying much less than their former rate. This range of experience naturally leads one to ask what variables explain or predict reemployment and earnings loss. In the appendix to this paper we present a complete set of coefficient estimates and related statistics for econometric models of reemployment and post-displacement earnings that we estimated using the data from the survey. In this section we summarize our findings.

Table 7 summarizes the effect of a number of variables on the probability of returning to full-time employment. The dependent variable in this analysis takes the value one if the worker is employed full-time in January 1984, and zero if he or she is not employed or is employed part time (recall that our sample only includes workers who were formerly employed full time). Displaced workers who have above-average levels of formal schooling, are household heads, or received relatively high earnings on their former job were more likely to be reemployed full time. Not surprisingly, reemployment rates are significantly lower in the first year following displacement. Reemployment rates are also significantly lower for blacks and for workers residing in areas with above-average unemployment rates or who exhausted their unemployment insurance benefits after losing their job.

For workers who do return to full-time jobs, what factors influence their current earnings relative to those on their old job? In order to answer this question, we estimated a model of reemployment earnings which controlled for prior earnings and other demographic and market variables might play a role in earnings determination. Table 8

Table 7

Variables Influencing Full-Time Reemployment [a]

Variable	Blue-Collar		White-Collar & Service	
	Male	Female	Male	Female
Prior Earnings	+	0	+	+
Age	-	+	0	0
Age $\geq$ 50	0	-	0	-
Education	+	+	+	0
Black	-	-	-	-
Head of H.H.	+	0	+	+
Children Under 18	+	-	0	+
Tenure on Old Job	0	0	0	0
Industry Union Coverage	-	0	0	0
Advance Knowledge of Layoff	0	+	0	0
Received UI	+	+	0	-
Exhausted UI	-	-	-	-
Area Unempl. Rate	-	-	-	-
Moved to New City/County	0	0	0	0
Time Since Displacement	+	+	+	+

a. Based on estimated coefficients in Appendix Tables A2 and A3:

+ significantly raises probability of full-time employment
- significantly lowers probability of full-time employment
0 no statistically significant effect

summarizes their effect. Prior earnings are a strong predictor of current earnings. We find, however, that workers with above-average earnings tend to have larger proportionate earnings losses. This suggests that workers with greater investments in on-the-job training lose some of these investments when forced to move to a new job. Workers reemployed in a new industry or occupation also experience larger earnings losses.

Education has a significant positive effect on earnings for all four groups, indicating that workers with greater formal schooling are able to retain a higher fraction of their former earnings. Male blue-collar workers with greater seniority on their former job tend to have larger earnings losses. Workers with longer initial spells of joblessness who exhaust UI benefits also consistently fare worse. Finally, area labor market conditions play a role: higher area unemployment rates generally lower reemployment earnings and increase earnings losses.

It is interesting to note that some of the factors that reduce the probability of resuming full-time employment are also associated with greater earnings losses once the worker is reemployed. In separate statistical work we have found that workers with long initial spells of joblessness also tend to exhibit the greatest long-run adjustment difficulties. 4/ These patterns suggest that profiles might be constructed of workers particularly likely to experience severe dislocation as a result of displacement. For example, high-tenure, blue-collar workers displaced in economically depressed regions might constitute such a group.

Fringe Benefit Loss: Group Health Insurance

For most Americans who are covered by private medical insurance, coverage is a fringe benefit of their job or the job of another family member. In 1979, 73% of full-time wage and salary workers in the private-sector and 83% in the public sector were covered by group health insurance on their job (U.S. Department of Labor [26, pp. 30,44]). In the majority of cases, benefit premiums are paid by the employer. Even when employees make a contribution, their share is usually a small fraction of the total premium (Bureau of National Affairs [3, pp. 21-22]). When the job is terminated, however, this benefit very quickly terminates, typically within 30-60 days after layoff (Price [20, p. 42]).

The possibility of health insurance loss thus looms large for displaced workers who suffer a long spell of joblessness subsequent to displacement, or accept a new job that does not provide this fringe benefit. Continuation of health insurance coverage in these circumstances may be particularly burdensome since the displaced worker will now

Table 8

Variables Influencing Reemployment Earnings [a]

Variable	Blue-Collar		White-Collar & Service	
	Male	Female	Male	Female
Prior Earnings	+	+	+	+
Age	+	0	0	0
Age $\geq$ 50	0	0	0	0
Education	+	+	+	+
Black	0	0	0	0
Tenure on Old Job	-	0	0	0
Industry Union Coverage	0	0	0	0
Advance Knowledge of Layoff	0	0	0	0
Received UI	0	0	0	0
Exhausted UI	-	-	-	-
Area Unempl. Rate	-	-	-	-
Moved to New City/County	0	0	0	0
Reemployed in:				
Same Industry	+	+	0	0
Same Occupation	+	+	+	+
Time Since Displacement	+	+	0	0

a. Based on OLS estimated coefficients in Appendix Tables A4 and A5:

+ significantly raises reemployment earnings
- significantly lowers reemployment earnings
0 no statistically significant effect

have to pay the full cost of this expensive fringe benefit at a time when his or her ability to pay may be greatly curtailed. Moreover, quality-adjusted prices are substantially higher for individual as compared to group policies. Indeed, workers deemed risky by insurers may be priced out of the insurance market altogether. The perceived existence of a growing pool of uninsured displaced workers has led to proposals to extend group health insurance benefits for permanently displaced workers (e.g., [15],[24]).

In addition to information on pre- and post-displacement earnings, the Displaced Worker Survey provided information on group health insurance coverage. As the tabulations in Table 9 show, most of the workers in our sample were covered by group health policies on their old job. Coverage rates range from 58.9 percent for women in white-collar and service jobs to 74.3 percent for white-collar and service men. In both occupational groups, men are somewhat more likely to be covered than women. In row (2) we report the proportion of our sample not currently covered by any group health insurance plan. Row (3) presents the intersection of rows (1) and (2), that is, workers who were covered on their old job and now report no coverage. These workers thus lost group health insurance as a result of displacement. The fourth row presents health insurance loss rates. Forty-two percent of blue-collar and thirty percent of white-collar workers had lost health insurance at the time of the survey. Loss rates for reemployed workers were 29.3 percent and 20.9 percent for the same two groups.

Percentage point increases in the probability of group health insurance loss associated with various worker characteristics are reported in Table 10. 5/ Workers with more schooling or who reside in a major metropolitan area (SMSA) are less likely to lose insurance coverage. Loss rates are highest in the first year folowing displacement and then fall by 3-5 percentage points a year. Among males, household heads are significantly less likely to lose coverage, while the opposite holds for female heads. Finally, blacks are more likely to lose coverage than are whites.

The statistical decomposition in Table 11 demonstrates the importance of labor force status for insurance loss and indicates that much of the difference between white and blue-collar loss rates is due to higher blue-collar unemployment. The loss rates reported in columns (1) and (4) are far higher for workers either unemployed or out of the labor force at the time of the survey than for reemployed workers. For example, the loss rate for unemployed male white-collar and service workers is 69.9%, while the corresponding rate for workers reemployed in the same industry and occupation as their prior job is just 13.5%. Columns (2) and (5), labelled "Weight," are the proportion each group represents of the

Table 9

Job Displacement and Group Health Insurance Coverage

	Blue-Collar			White-Collar & Service		
	Total	Male	Female	Total	Male	Female
1. Had Group Health Insurance on Old Job (%)	69.7	70.7	66.3	66.6	74.3	58.9
2. Not Currently Covered by Group Health Insurance (%)	47.7	47.5	48.2	37.8	36.3	39.3
3. Insured on Old Job and Not Currently Covered by Group Health Insurance (%)	29.2	29.4	28.5	20.1	23.0	17.3
4. Loss Rate (%) (Row 3/Row 1)	41.9	41.6	43.0	30.2	30.9	29.4
5. Loss Rate for Reemployed (%)	29.3	29.1	30.2	20.9	21.3	20.3

Table 10

Variables Influencing the Probability of Group Health Insurance Loss [a]

	Blue-Collar		White-Collar & Service	
Variable	Mean	Effect	Mean	Effect
Male				
Dep.Var.	41.6	-	30.9	-
Age	35.5	-.126	37.7	.092
Education	11.6	-2.02**	14.0	-3.72**
Head of H.H.	.828	-18.1**	.869	-25.5**
Black	.094	16.3**	.046	.907
SMSA	.307	-1.94	.436	-12.9**
Adv. Notice	.546	-4.40	.514	-.725
Time (yrs.)	2.06	-3.37**	2.00	-4.19**
Sample Size	1866	1866	865	865
Female				
Dep.Var.	43.0	-	29.4	-
Age	36.6	-.586**	36.3	.097
Education	11.5	-2.38*	13.0	-1.91*
Head of H.H.	.264	18.9**	.339	12.4**
Black	.150	21.6**	.094	29.1**
SMSA	.295	-8.88	.434	-10.1**
Adv. Notice	.565	-5.58	.560	-9.14*
Time (yrs.)	2.27	-4.27**	1.95	-4.87**
Sample Size	526	526	684	684

a. The "Effects" are the percentage point increase in the probability of losing group health insurance resulting from a unit increase in the given variable for an average worker in the sample. The symbols **, and * indicate that the null hypothesis that the effect is zero can be rejected at the one and five percent confidence levels.

Table 11

Employment Status and the Loss of Group Health Insurance

Male

Labor Force Status	White-Collar and Service (1) Loss Rate	(2) Weight	(3) Contribution	Blue-Collar (4) Loss Rate	(5) Weight	(6) Contribution
Unemployed	69.9	.177	12.4	67.4	.280	18.9
Not in the Labor Force	40.9	.051	2.1	64.3	.053	3.4
Employed:						
New Industry or Occupation	22.6	.661	14.9	32.0	.562	18.0
Same Industry and Occupation	13.5	.111	1.6	13.6	.106	1.4
Total	-	1.000	30.9	-	1.000	41.7

Female

Labor Force Status	White-Collar and Service (1) Loss Rate	(2) Weight	(3) Contribution	Blue-Collar (4) Loss Rate	(5) Weight	(6) Contribution
Unemployed	50.8	.173	8.8	59.4	.272	16.2
Not in the Labor Force	43.4	.165	7.2	54.9	.194	10.7
Employed:						
New Industry or Occupation	20.5	.620	12.7	32.4	.469	15.2
Same Industry and Occupation	17.2	.042	0.7	14.7	.065	1.0
Total	-	1.000	29.4	-	1.000	43.1

total displaced population for that subsample. Thus, .177 (17.7%) of displaced male white-collar and service workers were unemployed in January, 1984. The columns labelled "Contribution" are simply the product of "Loss Rate" and "Weight." The vertical sum of the contribution of all four labor force states produces the aggregate predicted loss rates shown in the row labelled "Total." For example, unemployed male white-collar and service workers contributed 12.4 percentage points to the 30.9% overall group loss rate.

The unemployed contribution to the group loss rate for both men and women, is much larger for blue collar workers than for white-collar and service workers. This accounts for much of the overall blue-collar/white-collar difference in loss rates. Moreover, this higher unemployment contribution is primarily due to a higher unemployment rate (i.e., a higher unemployment "Weight") among blue-collar workers.

Within each occupational grouping the total predicted loss rates for males and females are very similar. This similarity, however, is deceptive since it results from two off-setting differences. First, women are less likely to be reemployed, which leads ceteris paribus to greater loss of health insurance. For example, 77.2% of male white-collar and service workers were reemployed as of January 1984. The corresponding reemployment rate for women was only 66.2%. Second, loss rates conditional on labor force status tend to be lower for women, probably reflecting greater fallback coverage under their husband's health plan. The net effect is very similar overall loss rates for males and females.

The Older Displaced Worker

In Table 12, we compare displaced workers near or past coventional retirement ages with younger displaced workers. Most of the overall sample is less than fifty years of age, but 11.5 percent are in their fifties and 5.4 percent are sixty or older. Not surprisingly, the older groups of workers had substantially more seniority on their prior jobs than younger workers. The 20-49 age group averaged just 3.3 years of job tenure, while the corresponding figure was 14.4 for workers 65 and over. Surprisingly, the older displaced workers include more women and white-collar and service workers than do the younger group. Education levels fall with age, as does the proportion of black workers.

The post-displacement labor market experience of older workers is very different from that of "prime-age" workers. Whereas most of the workers under age sixty remain in the labor force, 39.2% of 60-64 year-olds and 67.6% of those 65 and over were out of the labor force at the time of the survey. Protracted unemployment appears to be most prevalent for workers displaced near, but under conventional retirement

Table 12

Older Workers Displaced from Full-Time Jobs [a]

	Age Groupings			
	(1) 20-40	(2) 50-59	(3) 60-64	(4) 65+
Demographic Characteristics:				
Education (yrs.)	12.4	11.2	10.9	10.7
Female (%)	33.2	36.5	38.0	43.8
Black (%)	10.5	9.4	4.5	6.7
Tenure on Old Job (%)	3.3	9.5	12.0	14.4
White-Collar(%)	39.0	44.2	44.4	54.3
Post-Displacement Experience:				
Labor Force Status (1/84)				
Not in Labor Force (%)	9.9	15.8	39.2	67.6
Unemployed (%)	23.6	31.0	26.9	8.6
Employed (%)	66.5	53.2	33.9	23.8
Average Earnings Ratio	.956	.863	.714	.998
Same Ind. and Occ. (% of reemployed)	13.0	16.2	20.5	28.0
Moved to a new City or County (%)	20.8	11.0	2.5	4.9
Entered a Job Training Program (%)	19.7	7.5	4.2	0.0
Share of Total Displaced Sample (%)	83.0	11.5	3.8	1.6

a. Ratio of current to (inflated) prior earnings for those reemployed.

age. These age groups (i.e., columns (2) and (3) in Table 12) also suffer the largest earnings losses when reemployed. Older workers are also substantially less likely to change industry or occupation, to move in order to obtain work, or enroll in an employment related training program. These patterns are consistent with the common impression that older workers experience the greatest earnings losses following displacement. The extent to which these losses reflect labor market discrimination and particular hardship is an important topic for further research. 6/

IV. Conclusion

Policy discussions of the displaced worker problem reflect considerable uncertainty over basic empirical issues such as the number of displaced workers and the severity of the labor market adjustment difficulties that they encounter. The data in the January 1984 Displaced Worker Survey help shed light on some of these questions. In this concluding section we briefly summarize some of our main findings.

In section II we found that displacement was rather widespread, and that it afflicted all regions, industries, and occupations. The rate of displacement was greatest in the Midwest, in goods-producing industries, and in blue-collar occupations. Younger, black, and less educated workers are also somewhat over-represented among displaced workers.

In Section III we examined the labor market experience of workers after displacement. We restricted our attention to workers formerly employed full time in nonagricultural wage and salary jobs. Approximately two-thirds of these workers were employed at the time of the January 1984 survey. For many of those reemployed, current earnings compared favorably with those on their former job. The median ratio of current to inflation-adjusted former earnings was .90 for blue-collar workers and .94 for white-collar and service workers. The experience of the median worker, however, masks a very wide dispersion.

In order to better understand post-displacement experience, we estimated models of reemployment and earnings loss. Black and women workers, workers with below-average education or prior earnings were less likely to be reemployed full time at the time of the survey. Local labor market conditions also played a significant role: higher unemployment rates reduced the probability of full-time employment.

For workers who did return to full-time work, earnings losses as compared to their former job tended to be greater for workers previously earning above-average pay. In effect,

workers who were relatively higher up the earnings ladder before displacement fell further. The effect was strongest for blue-collar males. Workers who returned to new jobs outside of their old industry or occupation generally fared worse than those who returned to their old type of work. The industry effect was also strongest for blue-collar males. Both the prior wage and industry effect suggest that the loss of on-the-job training investments play a role in earnings losses from displacement. Finally, workers reemployed in labor markets with above-average unemployment rates suffer larger earnings losses when reemployed.

In addition to earnings losses, we also examined the loss of group health insurance, an important fringe benefit. Displaced workers face a substantial probability of losing group health insurance as a result of displacement. The risk remains high for several years after displacement even as new employment is secured. Blue-collar workers, blacks, and workers with below-average education were more likely to have lost coverage at the time of the survey. This higher loss rate is explained in part by a lower reemployment rate.

Older displaced workers are more likely to be female, to have worked in a white-collar or service occupation, and to have accrued substantial tenure on their prior job than are their younger counterparts. Workers in their fifties are particularly likely to report extended unemployment, while workers age 60 and over tend to drop out of the labor force.

Our analysis of the Displaced Worker Survey points to a rather turbulent labor market, in which the risk of displacement looms large. While most workers recover successfully and weather displacement, a sizeable fraction founder and seem to suffer rather enduring losses in earnings capacity. This suggests that for most displaced workers the problem is one of adequate income maintenance until new employment is secured. For the sizeable minority of displaced workers who suffer large and enduring losses in earnings caplacity, however, more active labor market adjustment policies such as intensive job search assistance, retraining, wage subsidies, or public service employment seem to be required.

Our findings also suggest the importance of targeting adjustment assistance to the minority of displaced workers who would otherwise experience enduring losses in earnings capacity. It is reassuring to confirm that some of the criteria used to define a "dislocated worker" under Title III. of the Job Training Partnership Act of 1982 emerge from our analysis as good predictors of adjustment difficulties. In particular, exhaustion of unemployment insurance benefits and low probability of finding employment in the same industry, occupation, or region appear to be useful

indicators. Our results suggest that other factors, such as low education levels, might usefully be incorporated into eligibility determinations.

Notes

1. Studies of job displacement that utilize administrative records include those by Crosslin, Hanna, and Stevens [5]; Jacobson ([12],[13]); and Sabelhaus and Bednarzik [22]. Bendick and Radlinski Devine [1] use data on long-term joblessness in the Current Population Survey to infer displacement. Finally, the Panel Study on Income Dynamics [11], [21], the National Longitudinal Surveys [23], and a special U.S. Department of Labor survey of trade-displaced workers ([6], [18]) have been utilized in several studies.

2. We have excluded from our sample workers who report job loss due to self-employed business failure, termination of a seasonal job, and "other", which is consistent with Flaim and Sehgal [8]. These authors, however, restrict their sample to workers with three or more years of seniority on their old job.

3. Average annual full-time earnings by occupation and sex are from U.S. Department of Labor, Bureau of Labor Statistics, Employment and Earnings, April issue, 1981-1984 (Table 5); 1984:1 from July, 1984, Table A-75.

4. Supporting statistics may be found in Podgursky and Swaim [19].

5. We estimated separate probit models for the probability of insurance loss for each of four subsamples defined by sex and occupational grouping. The percentage point effects reported in Table 10 are calculated from maximum likelihood coefficient estimates for these models.

6. A substantial proportion of the two oldest groups may have adequate pension income to support a comfortable retirement. Shapiro and Sandell [23] do find evidence of labor market discrimination toward displaced workers who are 65 or older.

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Table A1

Summary of Variables in the Model

Variable	Definition
EMP	Dummy for reemployed full-time in Janurary, 1984
LNWGN	Natural log of post-displacement earnings
LNWGO	Natural log of earnings on old job (trend adjusted)
AGE	Age in years
AGEX50	Spline for AGE equal to or greater than 50
ED	Years of schooling completed
HEAD	Head of household
KIDS	One or more children at home
BLACK	Black
TENURE	Years of tenure on old job
UNCOV	Union coverage rate in old industry (three-digit Census)
CRAFT	Dummy for craft worker on old job
ADVNOT	Dummy indicating that worker expected or received advance notification of layoff
UI	Dummy for receipt of unemployment insurance
EXHAUST	Dummy for exhausted UI
UNAREA	Area unemployment rate
MOVE	Employment related move to a new city or county
SAMEIND	Reemployed in same 3-digit industry
SAMEOCC	Reemployed in same 3-digit occupation
D1982-D1979	Dummy variables for year of displacement

Table A2

Reemployment Probit Coefficient Estimates:
Displaced Blue-Collar Workers
(asymptotic t-ratios in parethensis)

	Male		Female	
Variable	Mean	Coefficient	Mean	Coefficient
LNWGO	5.77	.132* (2.05)	5.36	.177 (0.86)
AGE	34.1	-.011* (-2.42)	35.4	.026** (3.58)
AGEX50	6.75	-.003 (-1.28)	8.36	-.020** (-4.77)
ED	11.5	.051** (3.65)	11.5	.049* (1.98)
HEAD	.799	.512** (6.30)	.260	.191 (1.62)
KIDS	.515	.127* (2.05)	.533	-.252* (-2.28)
BLACK	.098	-.501** (-5.08)	.161	-.543** (-3.52)
TENURE	4.58	.004 (.707)	3.70	-.010 (-.77)
UNCOV/100	.366	-.323* (-2.04)	31.6	-.374 (-1.07)
CRAFT	.410	.071 (1.20)	.184	-.012 (-.09)
ADVNOT	.528	.063 (1.12)	.531	.205* (1.99)
UI	.688	.141* (1.98)	.666	.391** (2.96)
EXHAUST	.334	-.578** (-8.18)	.377	-.818** (-6.24)
UNAREA	9.62	-.072** (-6.40)	9.29	-.045* (-2.02)

Table A2 (Cont.)

	Male		Female	
Variable	Mean	Coefficient	Mean	Coefficient
MOVE	.212	.006 (0.08)	.132	.005 (0.03)
Displacement Year:				
1983 or 1/84	.291	--	.255	--
1982	.272	.720** (9.40)	.236	.602** (3.90)
1981	.203	.856** (10.2)	.193	.722** (4.50)
1980	.141	.948** (10.1)	.178	.843** (5.20)
1979	.093	.767** (7.08)	.138	.962** (5.31)
CONSTANT	--	-1.03** (-2.68)	--	-2.16* (-2.89)
EMP.	.532	(dep. variable)	.394	(dep. variable)
N	2305	--	734	--

* Significant at .05 level of confidence.
** Significant at .01 level of confidence.

Table A3

Reemployment Probit Coefficient Estimates:
Displaced White-Collar and Service Workers
(asymptotic t-ratios in parenthesis)

	Male		Female	
Variable	Mean	Coefficient	Mean	Coefficient
LNWGO	5.90	.252* (2.35)	5.45	.511** (5.12)
AGE	36.2	-.007 (-.89)	35.1	.001 (0.20)
AGEX50	8.47	-.003 (-.85)	8.56	-.007* (-2.05)
ED	13.7	.062** (3.04)	12.7	.026 (1.20)
HEAD	.836	.581** (4.15)	.326	.204* (2.19)
KIDS	.440	-.027 (-.25)	.413	-.239** (-2.64)
BLACK	.074	-.483** (-2.72)	.091	-.611** (-3.69)
TENURE	4.65	.002 (0.20)	3.43	-.012 (-1.08)
UNCOV/100	.232	-.119 (-.48)	19.3	-.347 (-1.45)
ADVNOT	.491	.009 (0.09)	.520	.056 (0.66)
UI	.604	-.020 (-.18)	.560	.232* (2.31)
EXHAUST	.213	-.786** (-6.12)	.252	-.654** (-5.49)
UNAREA	8.87	-.059** (-2.94)	9.04	-.059** (-3.18)
MOVE	.250	-.027 (-.24)	.144	.063 (0.51)

Table A3 (Cont.)

	Male		Female	
Variable	Mean	Coefficient	Mean	Coefficient
Displacement Year:				
D1983	.315	--	.294	--
D1982	.273	.757** (6.10)	.284	.515** (4.51)
D1981	.174	.787** (5.52)	.192	.412** (3.20)
D1980	.123	1.18** (6.48)	.131	.731** (5.04)
D1979	.115	.800** (4.63)	.099	.327** (2.03)
CONSTANT	--	-1.83** (-2.97)	--	-2.85** (-5.06)
EMP	.666	(dep. variable)	.457	(dep. variable)
N	896	--	997	--

* Significant at .05 level of confidence.
** Significant at .01 level of confidence.

Table A4

Earnings Equation Coefficient Estimates: Displaced Blue-Collar Workers Reemployed Full-Time in January, 1984
(t-ratios in parenthesis)

Dependent Variable = Natural Log of Weekly Earnings

	Male		Female	
Variable	Mean	Coef.	Mean	Coef.
Intercept	---	2.869** (18.86)	---	2.032** (6.84)
LNWGO	5.814	.412** (16.01)	5.408	.515** (9.16)
AGE	33.2	.005** (2.91)	35.4	-.002 (-.79)
AGEX50	4.79	-.001 (-1.20)	5.47	.001 (.88)
ED	11.8	.025** (4.39)	11.8	.046** (4.65)
BLACK	.059	-.088 (-1.92)	.090	.119 (1.67)
TENURE	4.3	-.006** (-2.66)	3.5	-.001 (-.19)
UNCOV/100	.357	-.031 (-.50)	.309	-.193 (-1.49)
CRAFT	.434	.096** (4.28)	.208	.058 (1.16)
ADVNOT	.541	(-.046) (-.75)	.561	(-.057) (-1.62)
UI	.666	(.017) (.66)	.654	-.017 (-.35)
EXHAUST	.267	-.142** (-5.19)	.270	-.100* (-1.99)
UNAREA	9.2	-.012** (-2.69)	8.9	.005 (.52)

Table A4 (Cont.)

	Male		Female	
Variable	Mean	Coef.	Mean	Coef.
MOVE	.235	.006 (.21)	.152	.028 (.50)
SAMEIND	.276	.197** (6.98)	.221	.057 (.92)
SAMEOCC	.270	.083** (2.93)	.187	.044 (.67)
Displmt Year:				
1983 or 1/84	.187	---	.149	---
1982	.284	.047 (1.45)	.221	.065 (.95)
1981	.234	.067* (1.98)	.225	.034 (.51)
1980	.181	.048 (1.33)	.232	.142* (2.12)
1979	.114	.073 (1.76)	.173	.095 (1.30)
adj. R2	---	.345	---	.348
Sample Size	1227	---	289	---

* Significant at .05 level of confidence.

* Significant at .01 level of confidence.

Table A5

Earnings Equation Coefficient Estimates: Displaced White-Collar & Service Workers Reemployed Full-Time in January, 1984 (t-ratios in parenthesis)

Dependent Variable = Natural Log of Weekly Earnings

	Male		Female	
Variable	Mean	Coef.	Mean	Coef.
Intercept	---	1.958** (9.44)	---	2.331** (9.73)
LNWGO	5.961	.570** (15.45)	5.560	.510** (12.17)
AGE	36.0	.003 (1.13)	34.4	-.001 (-.42)
AGEX50	7.26	-.002 (-1.66)	6.62	-.000 (-.01)
ED	14.0	.041** (5.88)	13.1	.039** (4.34)
BLACK	.045	-.110 (-1.44)	.046	.041 (.48)
TENURE	4.4	-.001 (-.18)	3.1	-.004 (-.81)
UNCOV/100	.224	-.017 (-.20)	.186	.053 (.55)
ADVNOT	.499	.031 (.99)	.533	.063* (1.76)
UI	.570	-.011 (-.32)	.548	.021 (.54)
EXHAUST	.147	-.226** (-4.75)	.180	-.141** (-2.74)
UNAREA	8.6	-.014* (-2.11)	8.7	-.027** (-3.41)
MOVE	.271	-.040 (-1.11)	.182	-.034 (-.72)

Table A5 (Cont.)

	Male		Female	
Variable	Mean	Coef.	Mean	Coef.
SAMEIND	.240	.124**	.160	.021
		(3.14)		(.41)
SAMEOCC	.310	.033	.213	.133**
		(.90)		(2.82)
Displmt Year:				
1983 or 1/84	.231	---	.221	---
1982	.290	-.028	.305	.054
		(-.64)		(1.09)
1981	.191	-.024	.202	.057
		(-.50)		(1.03)
1980	.154	.017	.182	-.003
		(.33)		(-.05)
1979	.134	.077	.090	.002
		(1.40)		(.03)
adj. R2	---	.471	---	.404
Sample Size	597	---	456	---

* Significant at .05 level of confidence.

** Significant at .01 level of confidence.